

ENCLOSURE #1

PENNSYLVANIA COASTAL ZONE MANAGEMENT PROGRAM

FINAL REPORT: PUBLIC COURTYARD CONSTRUCTION PROJECT

HISTORIC BARTRAM'S GARDEN

PHILADELPHIA, PA

PREPARED BY:

JOHN BARTRAM ASSOCIATION

54TH STREET AND LINDBERGH BOULEVARD

PHILADELPHIA, PA 19143

215-729-5281

January 10, 1991

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US Department of Commerce
National Coastal Services Center Library
2001 South Hobson Avenue
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Historic Bartram's Garden: Background Information

Historic Bartram's Garden is a 44-acre park owned by the City of Philadelphia and included within the Fairmount Park System. Since 1893, the John Bartram Association, a private non-profit educational organization, has worked in cooperation with the City on the park's preservation and restoration. Under a self-renewing lease, the Association provides all program staff for the site, raises funds for maintaining and restoring the historical garden and buildings, sponsors historical and archaeological research, operates educational programs for children and adults, and targets certain services to its immediate, economically depressed community in southwest Philadelphia.

Historic Bartram's Garden was designated a National Historic Landmark (1963) and added to the National Recreation Trails System (1985) by the National Park Service, U.S. Department of the Interior. Established in 1731 as a botanical garden by America's pioneering naturalist and botanist, John Bartram (1699-1777), today Historic Bartram's Garden is regarded as the oldest extant botanical garden in North or South America.

The site contains three significant collections:

I. Buildings:

Bartram House - built in late 17th century and expanded through the 1820s, restored with twelve period rooms open for public visitation.

Barn - built in 1775, partially restored, used for educational programs and storage.

Stable - built in 18th and early 19th centuries, first floor rehabilitated in 1990 for educational programs and rentals.

Carriage House and Dovecote - built in late 18th through early 19th centuries, partially restored in 1990 for public visitation.

Seedhouse Complex - four separate structures under one roof built from late 18th through early 19th centuries, includes deep, circular ice pit and root cellar restored in 1990 for public visitation, and classroom and service kitchen created in 1990 construction program.

(The barn, stable, and carriage house are arranged around a rectangular barnyard enclosed on the fourth side by a stone wall which was the location for the Coastal Zone Management-assisted Public Courtyard Project.)

II. Horticultural

Historic Botanic Garden - consists of numerous beds of the perennial species which the Bartrams collected and propagated; in the lower garden are mature specimen trees known by the Bartrams, some descended from their originals; Azalea Way is a 150-yard walk to the river bordered by native rhododendron, azaleas, and the rare Franklinia alatamaha.

Meadow - 15 acres of native wildflowers and grasses created on land reclaimed from industrial use.

III. Archaeological

Cider Press - very rare stone foundations carved in bedrock along the river bank supported a cider press erected by John Bartram in the 18th century.

Artifacts - thousands of artifacts have been recovered in several controlled archaeological digs which have been conducted at Historic Bartram's Garden since 1975. Most currently are in storage, but will be periodically displayed in new exhibit spaces crated by the 1990 construction program.

A research library is available to the public by appointment and contains information on the Bartram family and development of the site as an early botanical garden, commercial nursery, and later a public park.

The grounds of Historic Bartram's Garden are open daily dawn to dusk at no charge. Self-guided walking tours are available. The Bartram house is open for tours on a regular basis throughout the year, staffed by the John Bartram Association. A small fee is charged.

Public Courtyard Project: Background Information

In 1981, the Bartram House was restored by the City of Philadelphia and reopened to the public. Still in neglected and deteriorating condition, however, were the historically significant outbuildings and garden areas. To begin the process of reversing their decline, in 1984 the John Bartram Association commissioned a "Master Plan for the Restoration of Bartram's Garden" from Landscape Architect, Rudy J. Favretti. In 1985, the Association began raising funds for implementation of the plan which called for rehabilitation of the historic outbuildings for programmatic uses and restoring certain portions of the historic garden.

Fundraising continued through 1989 with more than \$1.3 million eventually raised for the entire scope of work. Part of that funding included a \$300,000 challenge grant from the Pew Charitable Trusts and a \$100,000 grant from the William Penn Foundation.

In 1988-89, the Association received approval of a \$50,000 grant from the Coastal Zone Management Program (CZM) for work on public access components of the restoration. The scope for the CZM component included creation of a public courtyard within the confines of the existing barnyard, including an all-weather surface, gates, and necessary electrical systems. Dagit Saylor was selected as architect and Unkefer Brothers as construction manager. The construction contracts for the CZM and remaining components of the construction project were signed with Unkefer Brothers February 12, 1990. The Association's contract with CZM was signed October 1, 1989 with an original termination date of September 30, 1990; this later was extended to December 31, 1990.

Work on both the CZM-assisted public courtyard project and outbuildings restoration proceeded simultaneously.

Project Description

The public courtyard project involved laying an all-weather surface on the existing barnyard, adding gates to enclose the area, and installing an electrical system for outdoor lighting and outlets. Several aspects of the project are of particular interest:

Archaeology

Because Historic Bartram's Garden is a National Historic Landmark, the federally-supported CZM project was reviewed by the Pennsylvania Historical and Museum Commission (PHMC) in accordance with Section 106 of the National Historic Preservation Act (1966, amended 1980). The Division of Archaeology and Protection required a Phase I Survey of the courtyard by a qualified archaeologist. The Association retained Joel Fry, Ph. D. candidate at the University of Pennsylvania, to compile this report which was submitted to the PHMC in March 1990. As a result of that survey, the PHMC approved creation of the courtyard, provided certain limitations were observed. Fry was on hand throughout the project to monitor and ensure the PHMC conditions were adhered to.

Excavations for the courtyard yielded several important discoveries. A hand-carved stone water trough with initials (one of which was "B") carved on the underside was uncovered beneath the layers of fill in the barnyard. Also found was the barnyard brick cistern, several brick drains, brick foundations for horticultural structures, stone foundations for walls, stone pavers for the original barnyard floor, and brick flooring for a portion of the barn no longer standing. After long discussions with archaeologists about the proper treatment of these archaeological features, it was the consensus that they should be carefully recorded and then covered so as to preserve them for future controlled archaeological excavation. Accordingly, all of these features were mapped, photographed, and measured, and an archaeological base map prepared (Attachment A). The features then were covered with a protective fabric and weighted down with sand and pennies dated "1990." The new brick surface was laid on top. The archaeological map, historical photographs, and supporting materials, will be featured in a future outdoor exhibit in the barnyard on its archaeology. The water trough is currently on display in the barnyard.

Brick Surface and Walkways

The public courtyard project resulted in the creation of 3,260 square feet of surfaced outdoor space. After long debate and cost comparisons, it was decided to use brick as the all-weather surface for the barnyard. The bricks are laid in a layer of sand and can be easily removed for work on the underlying mechanical systems or for controlled archaeological

survey. The Association anticipates that this will be an important aspect of its exhibit program in future years, as the public can visit the barnyard and see a dig in process. The brick surface made possible another unique undertaking: offering bricks with engraved names and/or the Bartram logo to donors for installation in the courtyard. The brick manufacturer of the pavers used in the courtyard, Glen-Gery Corporation, assisted the Association with the development of a promotional brochure. The campaign will be launched in 1991.

One thousand fifty square feet of brick walkways were created by the project. A brick drop-off station from the adjacent parking lot connected to a brick walkway and service drive serves as the new primary public entrance for Historic Bartram's Garden.

Lighting

Seventeen light fixtures, concealed behind the carved bargeboard of the stable and carriage house, wash the stone walls of the stable, carriage house, and dovecote in subtle light. Two lights also have been placed over the doors to the stable and carriage house which front on the courtyard. In all, 19 lights are programmed to go on at dusk, providing an additional measure of security for the site. Two lights, activated by a hand switch, have been installed beneath the dovecote. Heavy duty electrical outlets were installed in four areas of the barnyard, enhancing its usefulness for outdoor events.

Gates

Two kinds of gates were designed for and installed in the courtyard: barnyard-like horizontal wooden gates at the entrance and iron gates at the three other openings. The low-slung entrance gate is mounted on a massive squared stone pier which echoes other stone piers at the site as well as the stone of the buildings surrounding the courtyard. The same horizontal board design was incorporated along the ramp for handicap access to the carriage house and around the steps leading to the stable.

Locking, decorative iron gates were installed in three other locations. Each gate is capped by a horizontal frieze of botanical carvings, derived from eight motifs (found in three locations at the site) carved in stone by John Bartram. The motifs also were used in the creation of the Garden's new logo, adopted by the John Bartram Association in October 1990 (Attachment B). In addition, the botanical motifs are featured in the logo bricks described above.

Financial Report

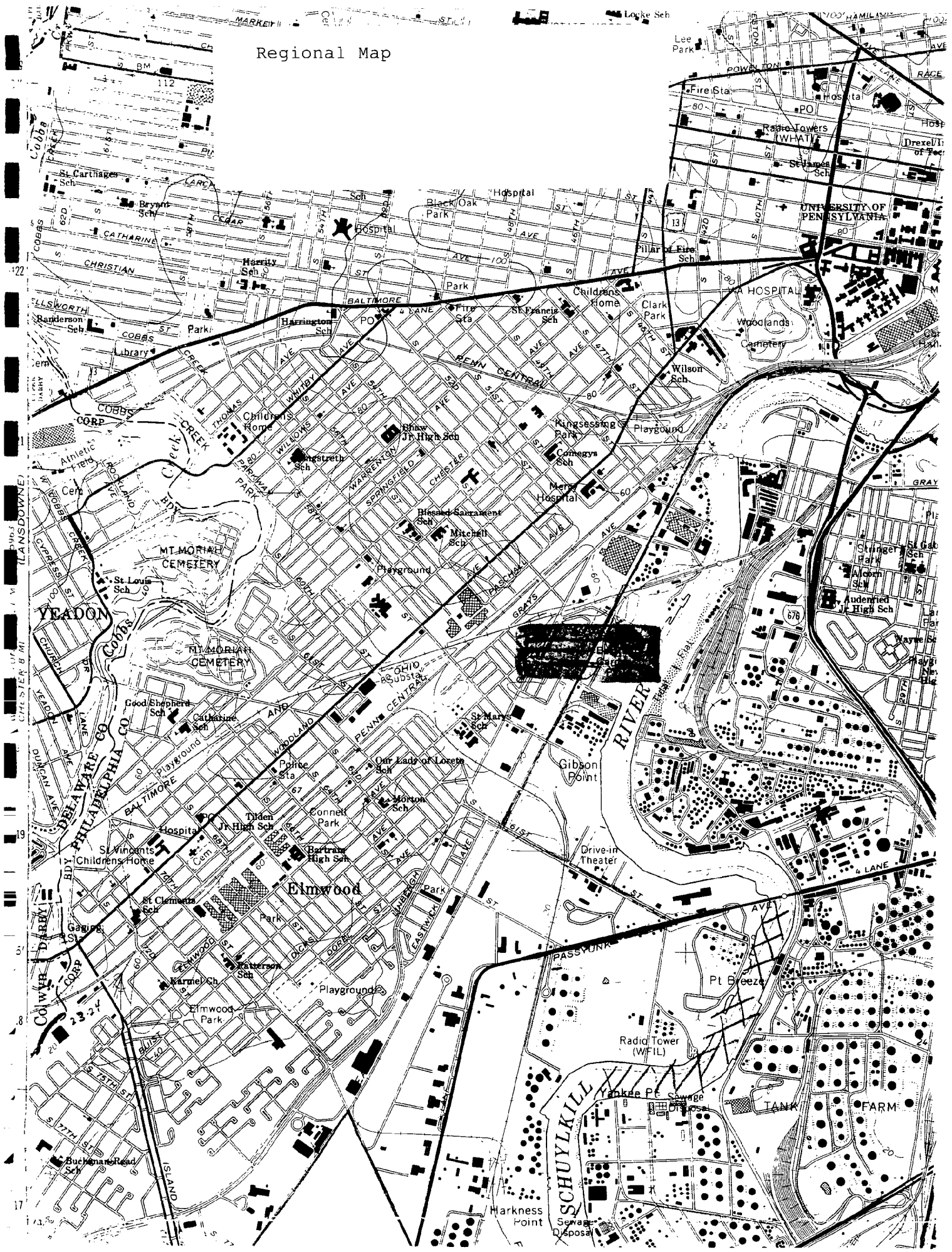
When the John Bartram Association submitted its initial application to the Coastal Zone Management Program in December 1988, a budget of \$150,510 was proposed based on rough estimates by the architect. Subsequent design modifications raised the architect's estimate to \$159,200 by October 1989. Fortunately, in its contract negotiations with Unkefer Brothers throughout December 1989 - February 1990, the Association was able to obtain a better price, i.e., \$148,893.00. The chief reason for the cost savings was in the use of brick as the all-weather surface, rather than the more expensive aggregate originally proposed by the architect. Brick was also unanimously recommended by archaeologists and the Philadelphia Historical Commission.

The contract price of \$148,893.00 with Unkefer Brothers as construction manager was broken down into the following categories:

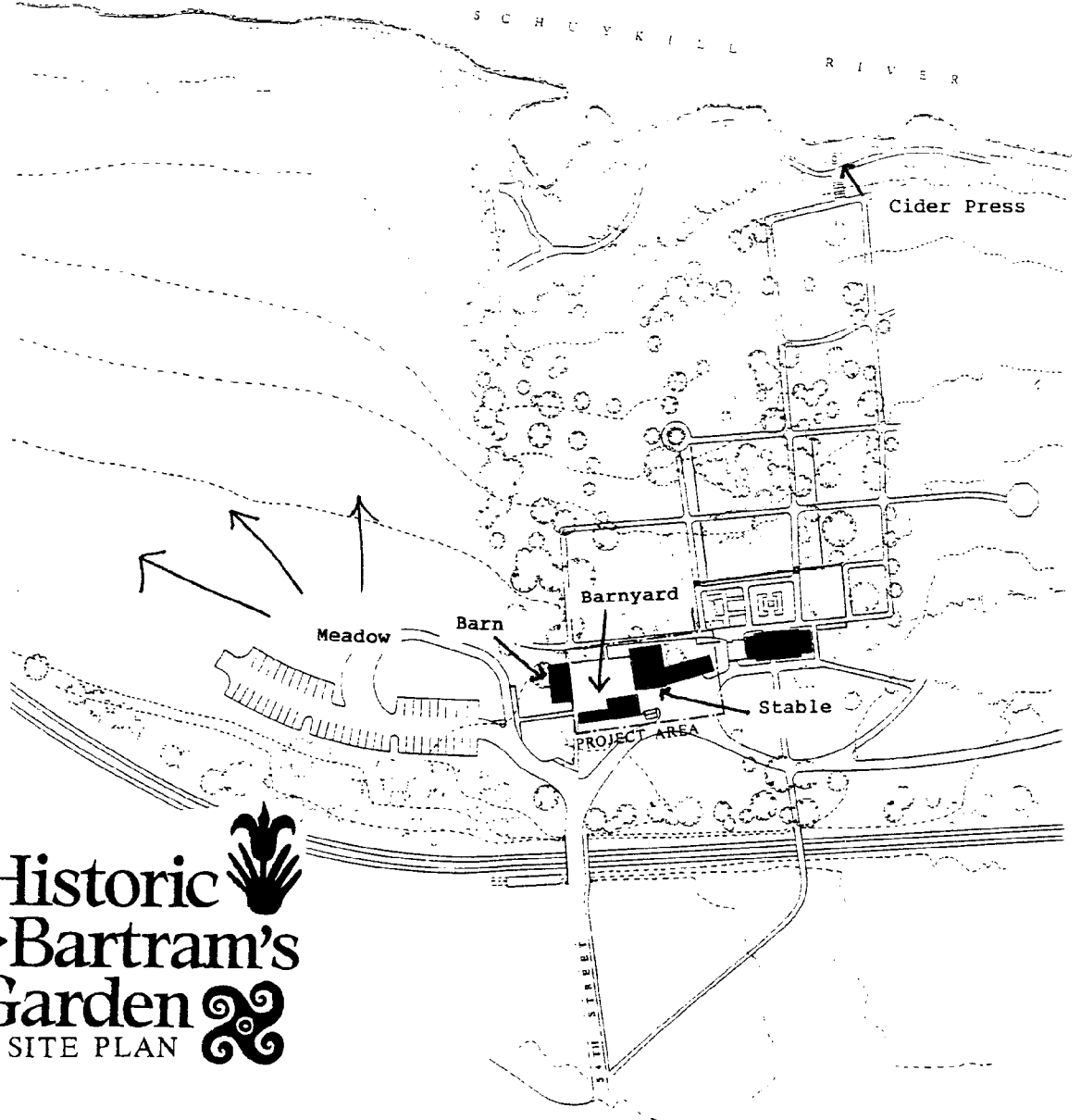
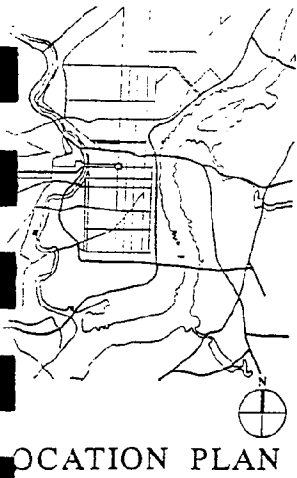
Earthwork	\$ 29,990
Brick Paving	59,573
Carpentry	7,440
Millwork	3,220
Masonry	3,890
Misc. Metals	8,130
Painting	1,630
Electrical	11,640
General Conditions	16,290
Fee	7,090
Total	\$ 148,893

The project was completed on December 26, 1990 when the last contract items, the three metal gates, were delivered and installed.

Regional Map



Property Map

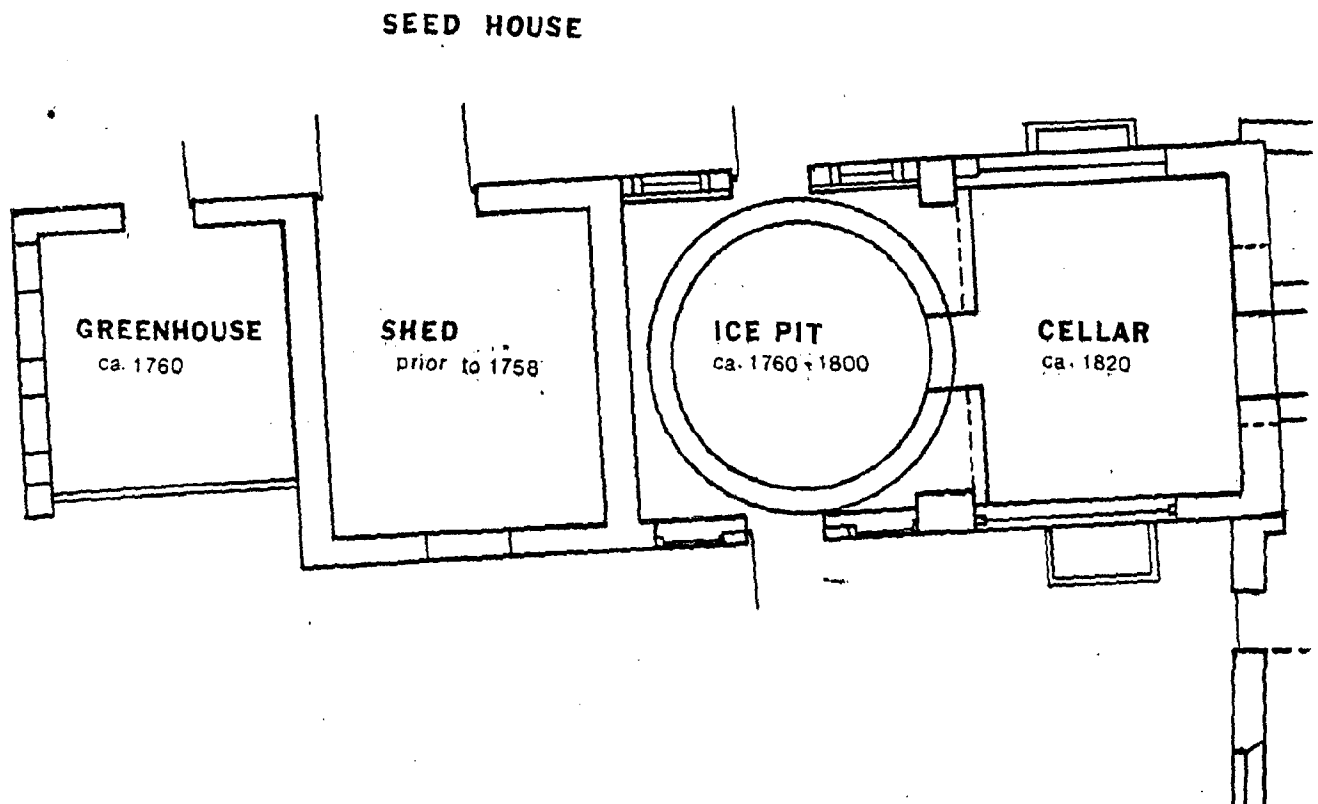


Coastal Zone Management Program

December 1990

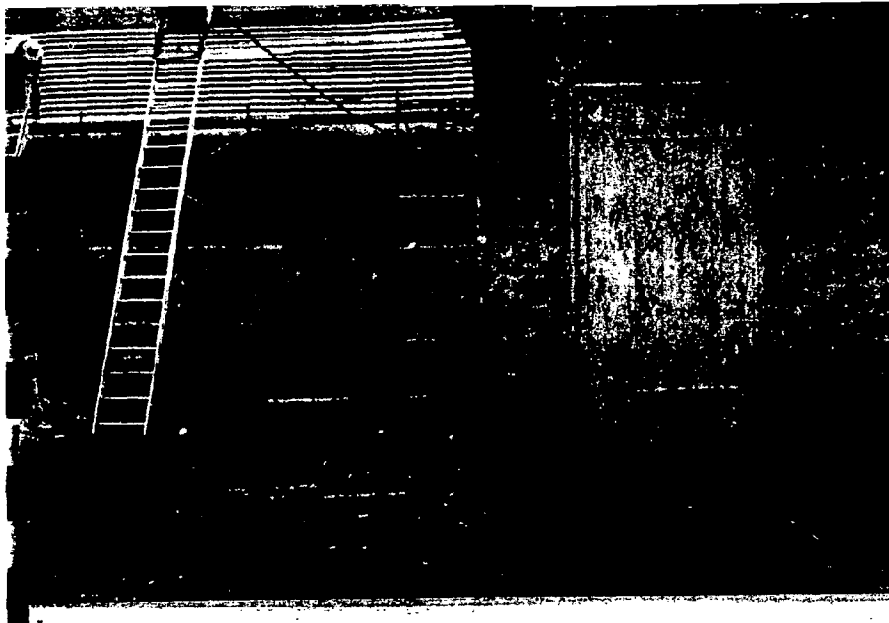
Bartram's Garden, Phila., Pa.

Barnyard & Outbuildings



New Bartram Logo incorporating
Botanical Motifs used in Gates





Barnyard during
courtyard
construction,
looking south towards
carriage house and
stable after fill was
removed.



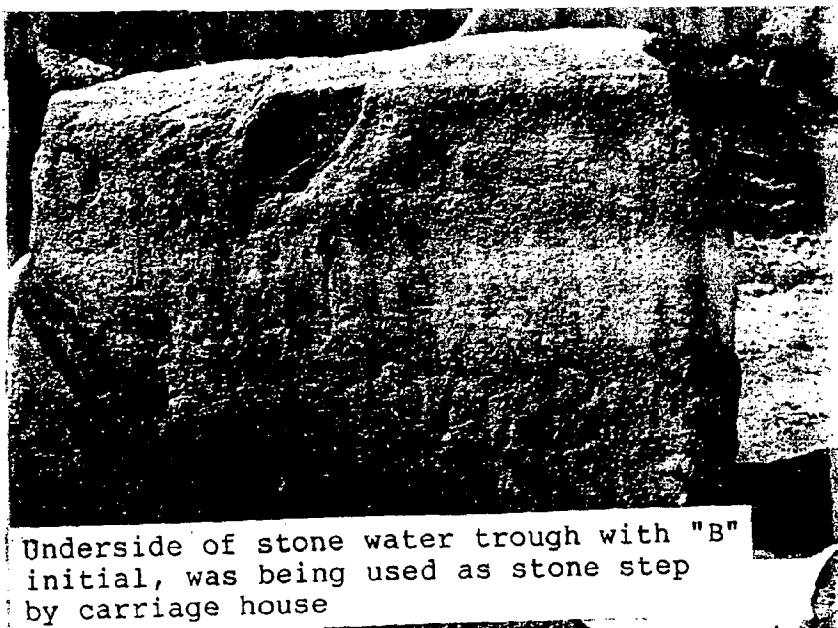
Barnyard during
courtyard
construction, looking
south prior to
removal of fill.



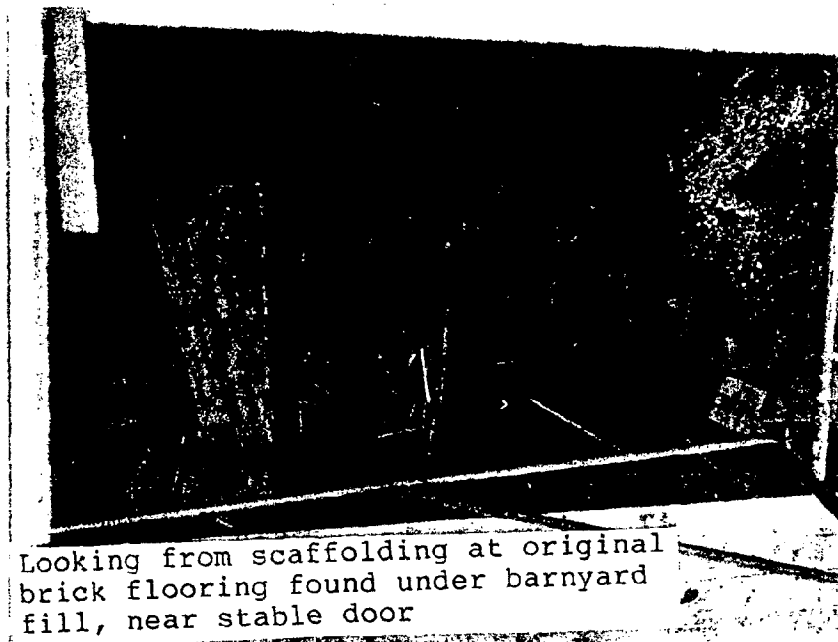
Barnyard during
courtyard
construction, looking
west at dovecote
prior to removal of
fill and debris.



Construction Supervisor, Ralph Cunningham, lays protective fabric over original stone barn floor uncovered during construction.



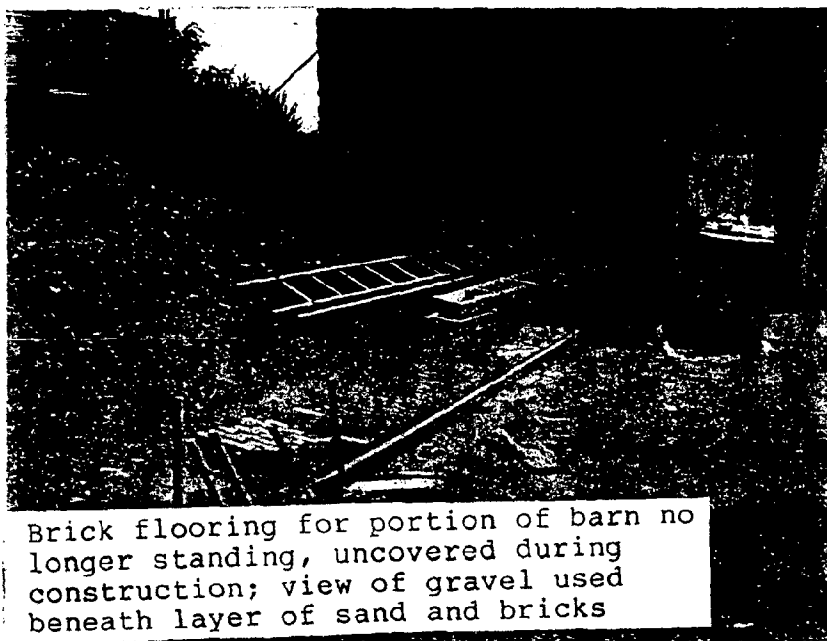
Underside of stone water trough with "B" initial, was being used as stone step by carriage house



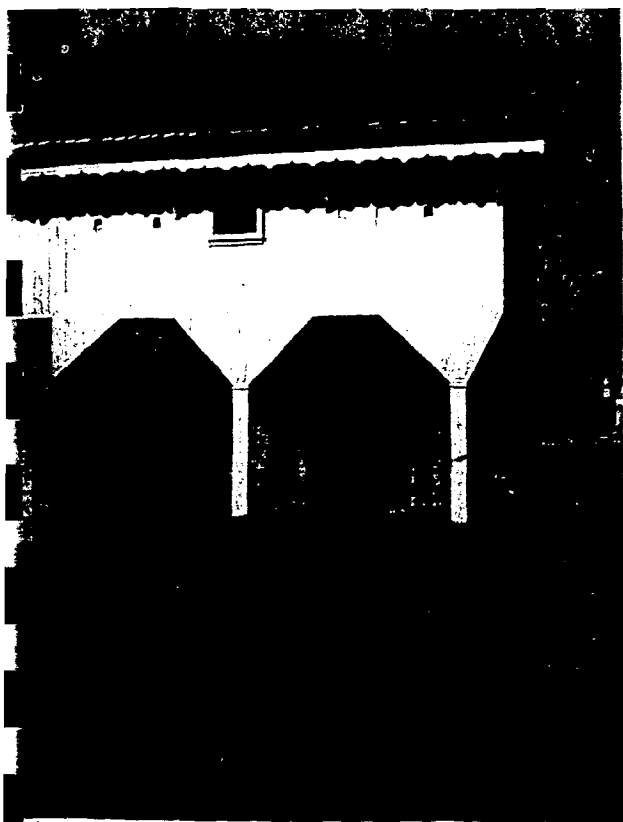
Looking from scaffolding at original brick flooring found under barnyard fill, near stable door



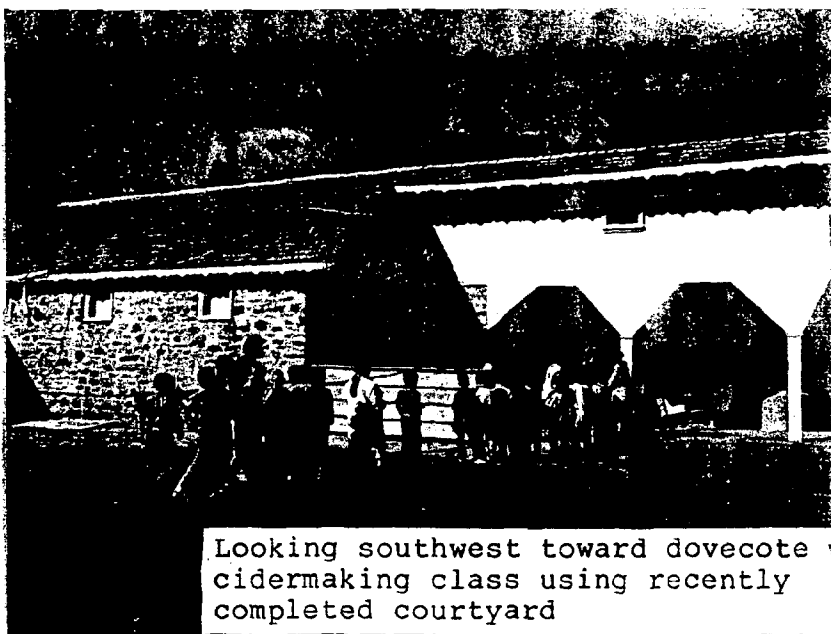
Archaeologist Joel Fry standing in brick cistern uncovered during construction



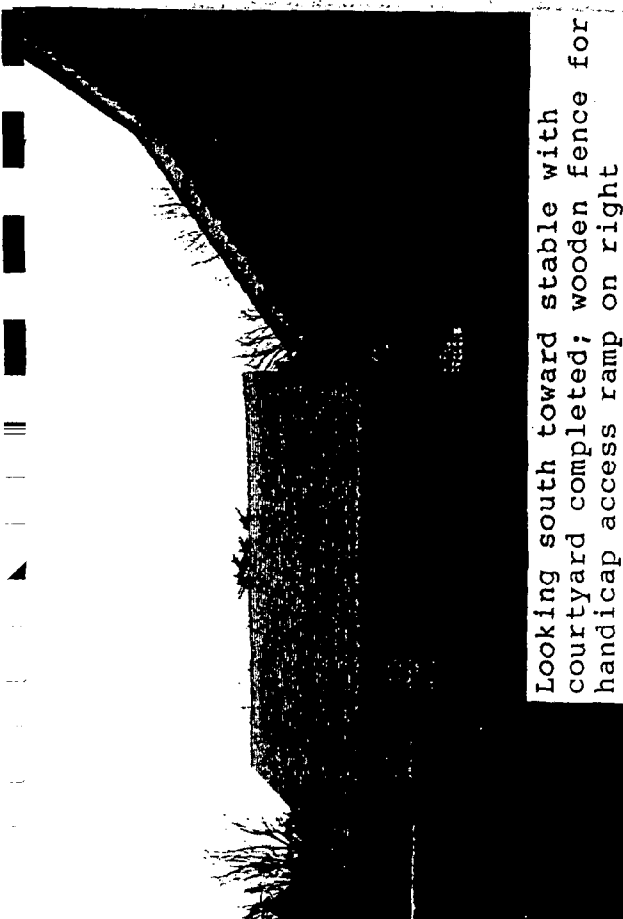
Brick flooring for portion of barn no longer standing, uncovered during construction; view of gravel used beneath layer of sand and bricks



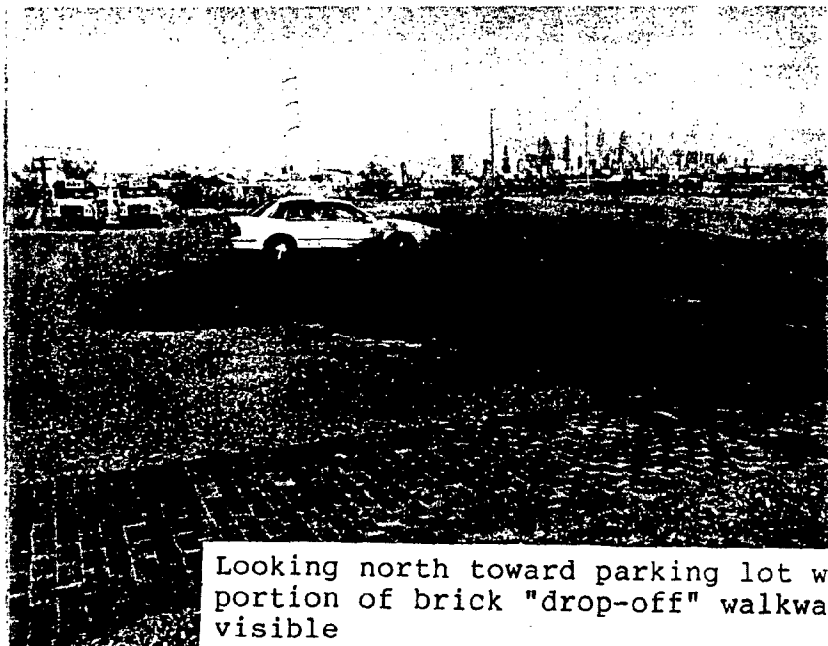
Looking west toward dovecote with courtyard completed



Looking southwest toward dovecote
cidermaking class using recently
completed courtyard



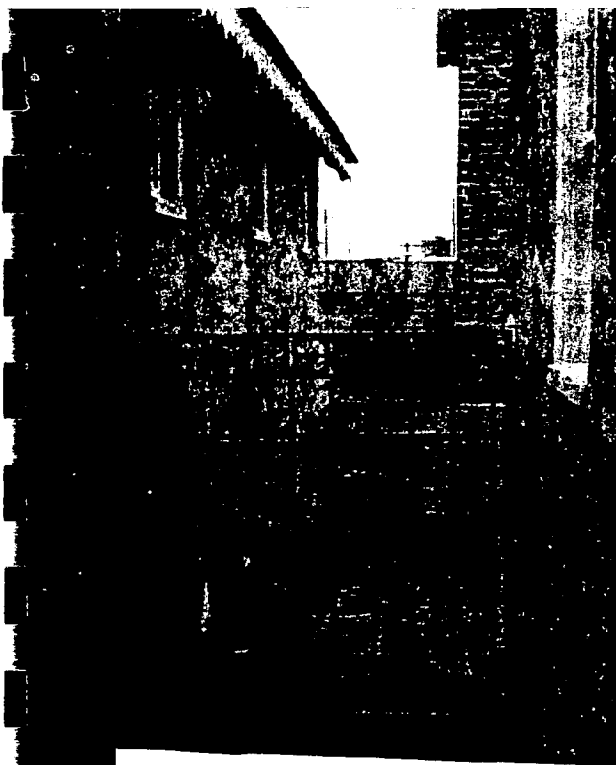
Looking south toward stable with
courtyard completed; wooden fence for
handicap access ramp on right



Looking north toward parking lot w
portion of brick "drop-off" walkwa
visible



Visitors using recently complet
courtyard during annual Greens



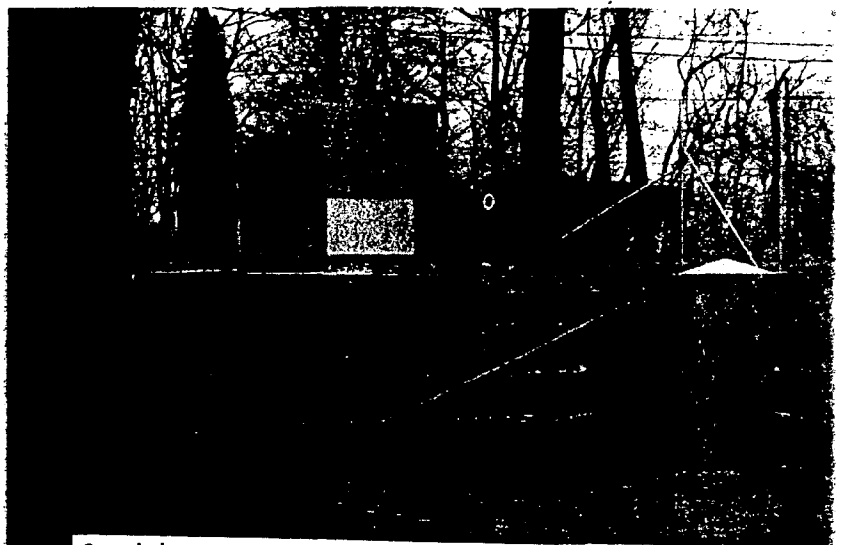
Looking north from outside courtyard at largest iron gate with botanical motifs



Looking southeast at courtyard and wood entrance gate with stone pier



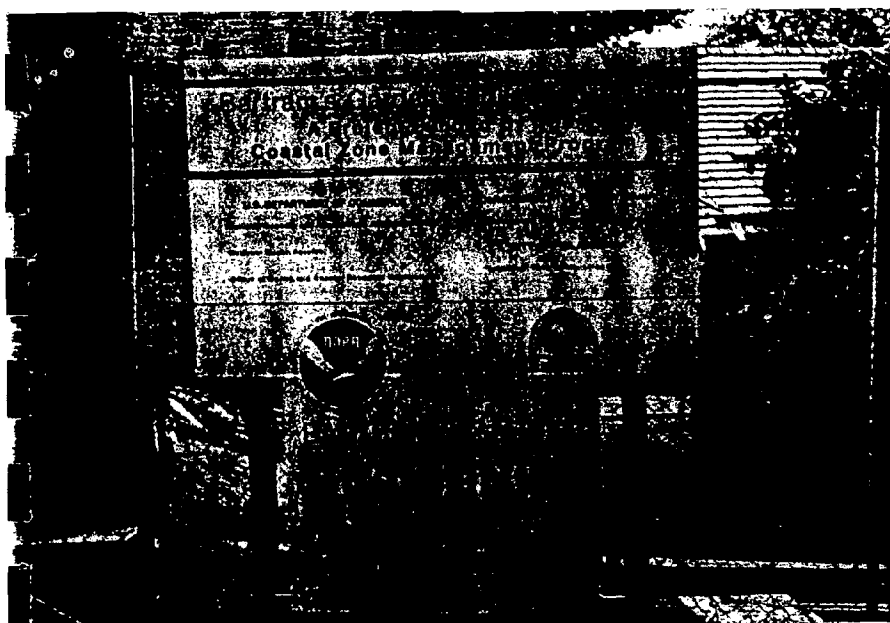
Looking east from courtyard toward river through iron gate with botanical motifs



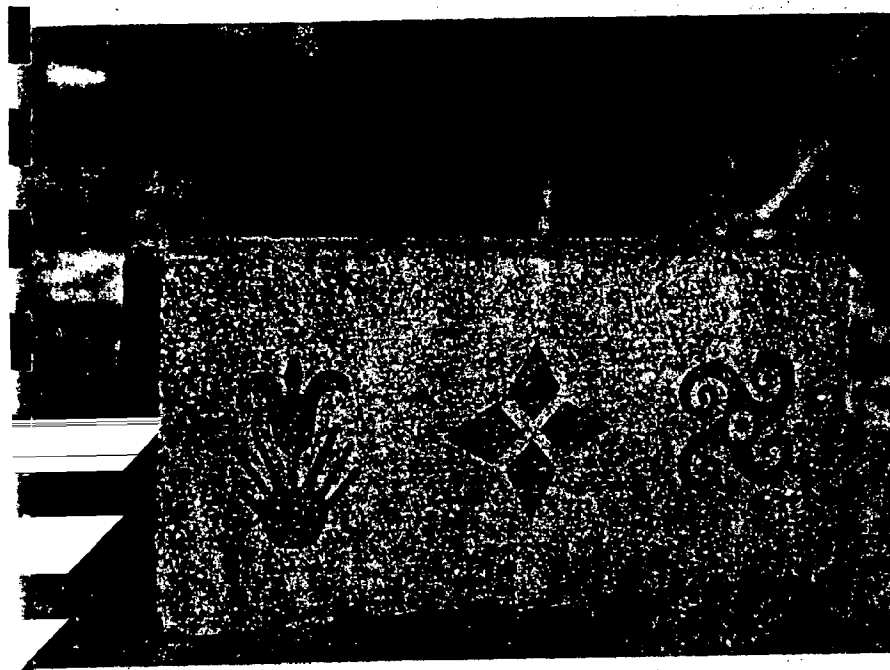
Looking west from courtyard, inside entrance gate, toward road leading to Bartram's Garden from Lindbergh Boulevard



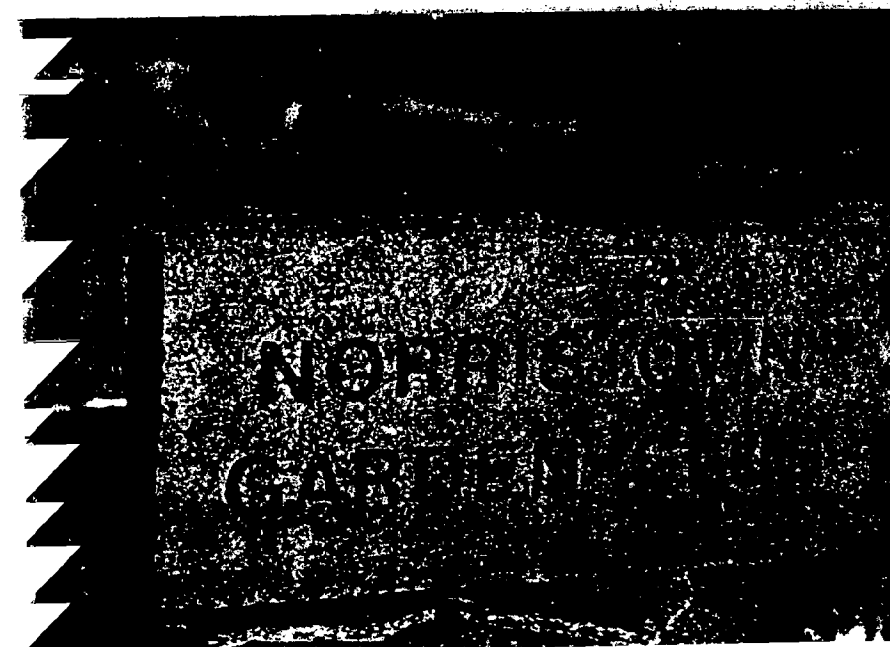
Looking southwest toward new iron gate between stable and carriage house; horizontal boards enclose steps to stable entry



Looking east at sign
erected on fence
surrounding construction
area



Bartram "logo brick" to be
installed in courtyard as
part of fundraising
campaign for maintenance of
courtyard



Sample "donor brick" to be
installed in courtyard

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